

ABSTRACT

A safety needle includes a needle with a sharp end and a needle shield. The needle shield includes collapsible interlocking members, wherein one member is an end member with a hole surrounding the needle, a spring inside the collapsible interlocking members that applies an expanding force on the collapsible interlocking members, a releasable latch structure that retains the collapsible interlocking members in a collapsed state, wherein when the releasable latch structure is actuated the collapsible interlocking members expand and enclose the sharp end of the needle, and a closing structure that prevents the sharp end of the needle from exiting the hole after the collapsible interlocking members enclose the sharp end of the needle.